Important: **This is *not* a lighting fundamentals or roadway lighting design course. We assume that the attendee has a basic understanding of roadway lighting design principles as well as lighting terminology (lumen, candela, intensity, illuminance, luminance, footcandle, lux, etc.) and a basic understanding of luminaire photometry.**

AGi32 Roadway Emphasis Class Outline: **3-Day Class**

I. Introductions
II. Getting Comfortable With AGi32
    a. Understanding the AGi32 Interface
    b. Adjusting System Settings
III. The 5 Steps to Success With AGi32
    a. Develop a Frame of Reference (Import or Build)
    b. Obtain, Define & Locate Luminaire Photometry
    c. Set Up and Perform Calculations
    d. Evaluate Results (Statistics, Isolines, Highlighted values, Rendered images, etc.)
    e. Presentation (Schedules, Exporting, Reports, Walk-Throughs, etc.)
IV. Roadway Calculations in AGi32 – what you need to know
V. RP-8 Overview and other stuff
    a. Roadway Classifications
    b. Pedestrian Conflict Area Classifications
    c. Pavement Classifications
    d. Roadway Lighting Design Criteria
    e. Roadway luminaire types (Types I-V; S-M-L ranges)
    f. Cutoff classifications
    g. Luminaire Classification System (LCS) & BUG Ratings
VI. Roadway Optimizer
    a. Uses, limitations, restrictions
    b. Roadway standards and pavement types
    c. Layouts
    d. Calc types
    e. Evaluating results
    f. Advanced settings
    g. Comparing layouts
    h. Exporting and/or printing results
VII. Expanded Roadway Application
    a. IES criteria (RP-8-00)

b. Translate Origin
c. Roadway Optimizer
d. Luminaire layout & templates
e. Roadway luminance and other calculations
f. View Manager
g. Project Manager
h. AutoCalc
i. Creating a "custom standard" to override RP-8-00 settings

VIII. Intersection Lighting
a. IES criteria (RP-8)
b. Single- and Multi-head luminaire Arrangements with post-top luminaires
c. Polygon-shaped grid, invoking arc command for corners
d. Isolines
e. Highlight Values

IX. Pedestrian Lighting Application
a. IES criteria (RP-8)
b. Horizontal illuminance on sidewalk
c. Vertical illuminance, elevated above sidewalk, two directions
d. Adding Objects with color and texture
e. Designating all surfaces as either Roadway Contributor or Roadway Pavement.
f. Full Radiosity calculations
g. Render Mode

X. High-Mast Application: a freeway interchange
a. Custom luminaire arrangement
b. Static vs dynamic poles
c. Iso-illuminance templates
d. Illuminance grids per RP-8
e. Calc points on a curved line, changing elevation (on-ramp)
f. Highlight Values
g. Statistical Area

XI. Tunnel Lighting and RP-22-11 (considering reflective surfaces)
a. IES criteria (RP-22-05)
b. Full Radiosity calculations for tunnel applications
c. Adding Objects to the tunnel
d. Designating all surfaces as either Roadway Pavement or Roadway Contributor
e. Calculation grids
f. Switching and dimming luminaires for nighttime
g. Visualizations in Render Mode
h. Using Scene Manager for daytime and nighttime calculations analysis

XII. Roundabout Lighting and DG-19-08
a. IES criteria (DG-19-08)
b. Locating luminaires in a circular array
c. Horizontal illuminance in the roundabout drive lanes
d. Vertical illuminance above the sidewalks
e. Calc points on a line, elevated, and "looking" at approaching drivers